

Amendments

Please amend the above-identified application, as follows:

In the Claims:

Please add claims 90-123 as follows:

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- - 90. (New) The method of claim 88, wherein said heat exchange structure comprises a dual flow conduit.

E 91. (New) The method of claim 90, wherein said dual flow conduit comprises a core member defining an interior passage adapted to receive a fluid and an outer member spaced from the core member and defining an outer passage with the core member, the inner and outer passages in fluid communication with each other to define a fluid flow path for a fluid.

92. (New) The method of claim 91, wherein fluid flows down the interior passage and up the outer passage.

93. (New) The method of claim 91, further comprising:  
receiving the fluid flowing through the interior passage defined by said core member in an end piece of said outer member.

94. (New) The method of claim 93, wherein said end piece includes a heat exchange member.

95. (New) The method of claim 94, further comprising:

forming a thermal bridge by said medium between the heat transfer member of said end piece and said interior wall wherein heat is transferred from said heat transfer member of said end piece through said thermal bridge to said interior wall

96. (New) The method of claim 88, wherein said heat transfer members are fins.

97. (New) The method of claim 91, wherein said heat transfer members extend radially from said outer member.

98. (New) The method of claim 91, wherein heat is transferred from said one or more of said heat transfer members through said outer member when fluid flows in the outer passage.

99. (New) The method of claim 91, wherein the core member and the outer member are tubular.

100. (New) The method of claim 99, wherein said vessel comprises a jacket spaced from an exterior wall of said vessel to define a fluid flow path adapted to receive fluid to actively cool said interior wall.

Sub 101. (New) The method of claim 80, further comprising:  
positioning baffles within the fluid flow path between the jacket and the exterior wall of said vessel to define a spiraling path for fluid.

102. (New) The method of claim 99, wherein said heat exchange structure is removeable from said vessel.

103. (New) The method of claim 99, wherein said interior wall comprises one or more heat transfer members extending towards said structure.

*Sub 104*  
*E1*  
~~104. (New) The method of claim 83, further comprising:  
forming a thermal bridge by said medium between said  
one or more heat transfer members of said interior wall and said  
one or more heat transfer members of said heat exchange  
structure wherein heat is transferred from said heat transfer  
member of said heat exchange structure through said thermal  
bridge to said heat transfer member of said interior wall when  
said interior wall is actively cooled.~~

105. (New) The method of claim 88, wherein the heat exchange structure comprises a plurality of heat transfer members, said plurality of heat transfer members being configured within said interior cavity to form freezing compartments.

106. (New) The method of claim 105, wherein said freezing compartments are formed between adjacent heat transfer members and said interior wall.

107. (New) The method of claim 88, wherein said heat exchange structure comprises a pipe being positioned in the center of said interior cavity, said heat transfer members extend radially from said pipe.

108. (New) A method of processing a biopharmaceutical product comprising:

placing a medium comprising a biopharmaceutical product within a vessel having an interior cavity defined by an interior wall of said vessel and a heat exchange structure within said cavity, said heat exchange structure having one or more heat transfer members;

E | actively cooling said interior wall using a cooling fluid; and

forming a thermal bridge within a gap between said heat transfer members and said interior wall by said medium wherein heat is transferred from said heat transfer member through said thermal bridge to said interior wall.

109. (New) The method of claim 108 further comprising storing the medium in the vessel after being actively cooled.

110. (New) The method of claim 108, wherein said vessel comprises a jacket spaced from an exterior wall of said vessel to define a fluid flow path adapted to receive fluid to actively cool said interior wall.

111. (New) The method of claim 110 further comprising placing baffles within the fluid flow patch between the jacket and the exterior wall of said vessel to define a spiraling path for fluid.

112. (New) The method of claim 108, wherein said heat exchange structure is removeable from said vessel.

113. (New) The method of claim 108, wherein the heat exchange structure comprises a plurality of heat transfer members, said plurality of heat transfer members being configured within said interior cavity to form freezing compartments.

114. (New) A method of facilitating the processing of a biopharmaceutical product comprising:

providing a vessel adapted to receive a medium comprising a biopharmaceutical product therein, said vessel having an interior cavity defined by an interior wall of said vessel and a heat exchange structure within said cavity, said heat exchange structure having one or more heat transfer members; and

providing a passage for actively cooling said interior wall using a cooling fluid to form a thermal bridge within a gap between said heat transfer members and said interior wall by said medium wherein heat is transferred from said heat transfer member through said thermal bridge to said interior wall.

115. (New) The method of claim 114, wherein said vessel comprises a jacket spaced from an exterior wall of said vessel to define a fluid flow path adapted to receive fluid to actively cool said interior wall.

116. (New) The method of claim 115 further comprising providing baffles within the fluid flow path between the jacket and the exterior wall of said vessel to define a spiraling path for fluid.

*could*  
117. (New) ~~The~~ method of claim 114, wherein said heat exchange structure comprises a dual flow conduit.

*E*  
118. (New) The method of claim 114, wherein said heat exchange structure comprises a plurality of heat transfer members.

119. (New) The method of claim 118, wherein said plurality of heat transfer members being configured within said interior cavity to form freezing compartments.

120. (New) The method of claim 114 further comprising providing one or more heat transfer members extending from the interior wall towards said heat exchange structure.

121. (New) The method of claim 114, wherein said heat exchange structure comprises a dual flow conduit.

122. (New) The method of claim 121, wherein said dual flow conduit comprises a core member defining an interior passage adapted to receive a fluid and an outer member spaced from the core member and defining an outer passage with the core member, the inner and outer passages in fluid communication with each other to define a fluid flow path for a fluid.

123. (New) The method of claim 114, wherein said heat  
El exchange structure comprises a pipe being positioned in the  
center of said interior cavity, said heat transfer members  
extend radially from said pipe.--

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